MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

GigaCrete, Inc. 4550 Engineers Way, Suite #101 North Las Vegas, NV 89081

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: GigaCrete Exterior Wall Panel System

APPROVAL DOCUMENT: Drawing No. 19-008, titled "GigaCrete Exterior Wall Panel System", sheets 1 through 13 of 13, prepared by Tilteco, Inc., dated January 30, 2019, signed and sealed by Walter A. Tillit Jr., P.E., on February 15, 2019 bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and the approval date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each panel shall bear a permanent label with the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of this page 1, evidence submitted page E-1 as well as approval document mentioned above.

The submitted documentation was reviewed by Helmy A. Makar, P.E., M.S.

MIAMI-DADE COUNTY APPROVED

HebA.N.W. W. 05/30/2019

NOA No. 19-0326.04 Expiration Date: 05/30/2024 Approval Date: 05/30/2019

Page 1

GigaCrete, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. 19-008, titled "GigaCrete Exterior Wall Panel System", sheets 1 through 13 of 13, prepared by Tilteco, Inc., dated January 30, 2019, signed and sealed by Walter A. Tillit Jr., P.E., on February 15, 2019.

B. TEST

- 1. Test report on Large Missile Impact test per TAS 201, Cyclic Wind Pressure test per TAS 203 and Uniform Static Air Pressure test and Air & Water Infiltration tests per TAS 202and ASTM E 72-98 on Composite Wall Panels over Galvanized Steel Studs, prepared by Blackwater Testing, Inc., report No. BT-GIC-18-002, dated 02/11/2019, signed and sealed by Constantin Bortes, P.E.
- 2. Test report on Heat Release and Flame Spread on Composite Wall Panels over Galvanized Steel Studs, prepared by Intertek, report No. G100017878COQ-004 rev 1, dated 05/18/10, revised on 06/07/10, signed by Greg Philp.

C. CALCULATIONS

1. Panel allowable calculation and Anchors' verification prepared by Walter A.
Tillit Jr., P.E. dated February 08, 2019, signed and sealed by Walter A Tilit Jr.,
PE.

D. QUALITY ASSURANCE

1. By Miami-Dade County Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATION

1. Copy of N.O,A. # 17-1207.05.

F. OTHERS

1. Florida Building Code, 2017 Edition Compliance letter, issued by Tilteco, Inc., dated February 04, 2019, signed and sealed by Walter A. Tillit Jr., P.E.

Helmy A. Makar, P.E., M.S. Product Control Section Supervisor

NOA No. 19-0326.04

Expiration Date: 05/30/2024 Approval Date: 05/30/2019

GENERAL NOTES:

1. THIS PRODUCT APPROVAL DOCUMENT (P.A.D.) APPLIES ONLY TO THE WALL PANEL SYSTEM INDICATED AND SPECIFIED ON THIS DRAWING, AND HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2017 (6th EDITION) OF THE FLORIDA BUILDING CODE.

DESIGN WIND LOADS TO OBTAIN A BUILDING PERMIT SHALL BE DETERMINED AS PER SECTION 1620 OF THE ABOVE MENTIONED CODE, USING ASCE 7-10 AND SHALL NOT EXCEED THE MAXIMUM (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON THIS SHEET.

IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER ASCE 7-10 SHALL BE FIRST REDUCED TO A.S.D. DESIGN WIND LOADS BY MULTIPLYING THEM BY 0.6 IN ORDER TO COMPARE THESE W/ MAX. (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON THIS SHEET.

DESIGN DEAD AND LIVE LOADS SHALL BE DETERMINED IN ACCORDANCE WITH SECTION 1607 OF THE FLORIDA BUILDING CODE. AND AS PER ASCE 7-10 STANDARD

- 2. BUILDING DIMENSIONS, DETAILS, UPLIFT, OVERTURNING, FOUNDATION, ROOF AND OTHER ELEMENTS WHERE WALL PANELS WILL BE INSTALLED SHALL BE DESIGNED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER OR ARCHITECT AND REVIEWED BY THE STRUCTURAL PLANS EXAMINER OF THE CORRESPONDING BUILDING DEPARTMENT IN ORDER TO ISSUE A PERMIT FOR CONSTRUCTION.
- 3. ALL ELECTRICAL, MECHANICAL DETAILS AND PARTS AND FIRE RATING PROVISIONS ARE NOT PART OF THIS APPROVAL AND SHALL BE PREPARED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER AND REVIEWED BY THE CORRESPONDING BUILDING DEPARTMENT IN ORDER TO ISSUE A PERMIT FOR CONSTRUCTION.
- 4. THIS PRODUCT COMPLIES WITH SECTIONS 2603.3, 2603.4 & 2603.9 OF THE FLORIDA BUILDING CODE.
- 5. ALL SCREWS SHALL BE CORROSION RESISTANT AS PER DIN 50018 WITH MIN. Fy=92 Ksi AND Fu=120 ksi & SHALL COMPLY W/ FLORIDA BUILDING CODE SECTION 2411.3.3.4.
- 6. ANCHORS TO CONCRETE FLOOR & FOUNDATION SHALL BE AS FOLLOWS:
- (A) COMPONENT # (7A) 3/4"ø x 9" GALVANIZED STEEL ALL THREADED ROD WITH 1/8"x 1-1/2" OD WASHERS AS SHOWN ON ELEVATIONS SHEETS 6, 7 & 8. USE 6 3/4" MINIMUM EMBEDMENT & 4" MINIMUM EDGE DISTANCE. USE WITH SIMPSON'S STRONG TIE "SET 22" EPOXY ADHESIVE. SEE BILL OF MATERIALS ON SHEET 4.
- (B) COMPONENT # (7B) 3/4" × 9" + 4" COUPLING + \$3/4" (REMAINING WALL HEIGHT) GALVANIZED STEEL ALL THREADED ROD WITH 1/8" x 1-1/2" OD WASHERS, AS SHOWN ON ELEVATIONS SHEETS 6, 7 & 8. USE 6 3/4" MINIMUM EMBEDMENT & 4" MINIMUM EDGE DISTANCE. USE WITH SIMPSON'S STRONG TIE "SET 22" EPOXY ADHESIVE. SEE BILL OF MATERIALS ON SHEET 4. NOTE: TO VERIFY THAT ANCHORS ARE NOT OVERSTRESSED IN THESE PRODUCT APPROVAL DOCUMENTS
- 7. WALL PANEL SYSTEM IS DESIGNED TO BE INSTALLED AS AN EXTERIOR ONE STORY STRUCTURE BEARING WALL OR CURTAIN WALL:
- WHEN INSTALLED AS A BEARING WALL, PANEL SHALL BE LATERALLY SUPPORTED BY A CONCRETE SLAB AND FOUNDATION AT THE BOTTOM, AND ROOF TRUSSES OR RAFTERS WITH SHEATHING AT TOP, AT A SPACINGS NOT TO EXCEED 24" ON CENTERS. WALL CONNECTION TO ROOF SYSTEM SHALL BE PERFORMED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER OR ARCHITECT AND REVIEWED BY THE STRUCTURAL PLANS EXAMINER OF THE CORRESPONDING BUILDING DEPARTMENT IN ORDER TO ISSUE A PERMIT FOR CONSTRUCTION. STRUCTURAL DESIGN SHALL INCLUDE PROVISIONS FOR ALL LOADS DEVELOPED AT THE JOINT BETWEEN WALL PANELS AND ROOF SYSTEM.

(P.A.D.), A 33% IN ALLOWABLE LOADS WAS NOT USE IN THE ANCHORS ANALYSIS.

- WHEN INSTALLED AS A CURTAIN WALL, PANEL SHALL BE LATERALLY SUPPORTED BY CONCRETE SLABS/BEAMS, WOOD OR STEEL STRUCTURAL BEAMS, SPACING BETWEEN LATERAL SUPPORT SHALL NOT EXCEED 24" ON CENTERS ON BUILDINGS WITHOUT A CONCRETE SLAB AT TOP. STRUCTURAL ADEQUACY OF EXISTING BUILDING SHALL BE VERIFIED BY THE PERMIT HOLDER,

MAXIMUM A.S.D. ALLOWABLES: OBTAINED THRU TESTING PERFORMED AS PER TAS 201, 202, 203 AND ASTM E-72, AS PER BLACKWATER TESTING INC. REPORT # BT-GIC-18-002 LARGE MISSILE IMPACT RESISTANT: 50 FT/SEC. MISSILE SPEED.

MAXIMUM PANEL HEIGHT: 120" MAXIMUM PANEL WIDTH: 48"

MAXIMUM A.S.D. COMPRESSION LOAD PER 4' PANEL: 3734 Lb (934 Lb/FT) *

MAXIMUM A.S.D. TENSION LOAD PER 4' PANEL: 2600 Lb (934 Lb/FT) *

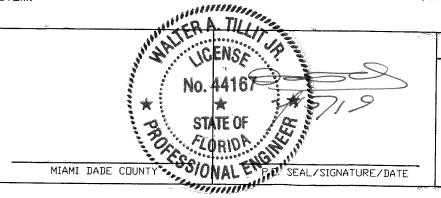
MAXIMUM A.S.D. RACKING LOAD PER 4' PANEL: 2200 Lb (584 Lb/FT) * MAXIMUM LATERAL A.S.D. DESIGN PRESSURE RATING FOR PANELS WITH STUDS @ 24" o.c.: ±100.0 psf

- * ONLY SOLID PANELS (WITH NO OPENINGS) SHALL BE CONSIDERED TO RESIST THE RACKING FORCES, COMPRESSION AND TENSION LOADS.
- 8. ELECTRIC SERVICE DROP CONDUCTORS OR ANY OVERHEAD WIRING SHALL NOT EXIST OR BE INSTALLED OVER ANY PART OF THIS STRUCTURE.
- 9. (a) THIS P.A.D. PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; i.e. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.A.D.
 - (b) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT BASED ON THIS P.A.D. PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.
 - (c) THIS P.A.D. WILL BE CONSIDERED INVALID IF MODIFIED.
 - (d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE PROFESSIONAL OF RECORD (P.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.A.D. PROFESSIONAL OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.A.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.
 - (e) ORIGINAL P.A.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER THAT PREPARED IT.
- 10. A PERMANENT PANEL MANUFACTURER'S LABEL SHALL BE PLACED ON THE EXPOSED SURFACE OF THE PANEL. ONE LABEL SHALL BE PLACED FOR EVERY PANEL. LABEL SHALL READ AS FOLLOWS: GigaCrete WALL PANEL

GigaCrete NORTH LAS VEGAS, NV MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED,

THIS DRAWING SHALL ONLY BE USED TO OBTAIN PERMITS IN THE STATE OF FLORIDA

Approved as complying with the Florida Building Code
Date 05/30/2019



FLORIDA BUILDING CODE (HIGH VELOCITY HURRICANE ZONE)

GigaCrete Exterior Wall Panel System gacre

4550 ENGINEERS WAY, SUITE 101

NORTH LAS VEGAS, NV 89081 DATE REV. No

19-008 DRAWING No. SHEET 1 OF 13

DATE

M.P.

DRAWN BY:

1/30/19

DATE:

e-moil: tilteco@ool.com CA-0006719 WALTER A. TILLIT Jr. P.E. FLORIDA Lic. # 44167

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IILIECO INC.

TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th. St., Ste. 305, VIRGINIA GARDENS, FI. 33166
Phone: (305)871-1530 . Fox: (305)871-1531

SPECIFICATIONS & APPLICATION SEQUENCE FOR STUCCO MAX ON WALL PANELS MANUFACTURED BY GIGACRETE Inc.

(1) STUCCO MAX: EXTERIOR ONE COAT STUCCO OVER EPS FOAM

(1.1) DESCRIPTION:

STUCCOMAX IS A TRULY GREEN NON PORTLAND CEMENT BASE EXTERIOR WALL FINISH COATING. ITS HIGH EARLY STRENGTH IS ACHIEVED IN LESS THAN 24 HOURS AND FAST SETTING QUALITIES ENABLE THE FINISH TO BE APPLIED WITHIN A SINGLE WORK DAY. STUCCOMAX UTILIZES FIBERGLASS MESH TO FURTHER ENHANCE ITS INHERENT ABUSE RESISTANT QUALITIES IN THIN APPLICATIONS.

(1.2) USES:

STUCCOMAX IS APPLIED TO EXTERIOR WALLS IN RESIDENTIAL, COMMERCIAL AND INDUSTRIAL INSULATED CONCRETE CONSTRUCTION (ICF) AND OTHER BUILDING SYSTEMS THAT UTILIZE EXPANDED POLYSTYRENE (EPS). STUCCOMAX IS ALSO USED AS A WATERPROOF BARRIER. THE PRODUCT CAN BE PAINTED OR STAINED, FINISHED IN NUMEROUS TEXTURES. INTEGRAL COLORS ARE NO YET AVAILABLE.

(1.3) ADVANTAGES:

STUCCOMAX SETS AND CURES IN A FRACTION OF THE TIME OF CONVENTIONAL PORTLAND CEMENT PRODUCTS PROVIDING QUICK JOB TURN AROUND.

(1.4) JOB SITE CONDITIONS

(1.4.1) **WEATHER:** STUCCOMAX SHALL BE APPLIED IN AMBIENT AIR TEMPERATURES ABOVE 32°F AND RISING AND REMAIN ABOVE 32°F FOR A 24 HOUR PERIOD. AVOID INSTALLING IN EXCESSIVE HEAT ABOVE 85°F UNLESS PRECAUTIONS ARE MADE TO AVOID RAPID HYDRATION.

DO NOT APPLY **STUCCOMAX** DURING INCLEMENT WEATHER OR WHEN INCLEMENT WEATHER IS INEVITABLE UNLESS APPROPRIATE WEATHER PROTECTION IS USED.

(1.4.2) <u>DIRECT SUNLIGHT:</u> WHENEVER POSSIBLE, AVOID INSTALLING **STUCCOMAX** IN DIRECT SUNLIGHT. DIRECT SUNLIGHT REDUCES WORKING TIME AND MAY PROMOTE PREMATURE SURFACE HYDRATION. SHADE THE WORK AREA IF NECESSARY TO AVOID SUN/SHADE LINES FROM THE COATING ITSELF. MISTING THE WORK AREA IN DRY CONDITIONS WILL INCREASE THE RELATIVE HUMIDITY (35% MINIMUM) AND HELP THE MATERIALS FROM PREMATURE HYDRATION. WET CURING FOR AT LEAST 3 HOURS IS RECOMMENDED AND MAINTAIN 35% MINIMUM RELATIVE HUMIDITY FOR 24 HOURS.

(1.5) ACCESSORIES AND RELATED MATERIALS

(1.5.1) **SEALANTS:** PERIMETER SEALS AROUND WINDOW AND DOOR FRAMES AND ALL OTHER THROUGH WALL PENETRATIONS SHALL BE DESIGNED FOR 50% ELONGATION AND MINIMUM 25% COMPRESSION. APPROPRIATE SEALANT SHALL BE SELECTED BY THE ARCHITECT.

PERIMETER SEAL JOINTS SHALL BE A MINIMUM WIDTH OF 1/2" AND UTILIZE A CLOSED—CELL POLYURETHANE FOAM BACKER ROD. JOINT DESIGN AND ASSOCIATED PREPARATION SHALL BE BASED UPON THE SEALANT MANUFACTURE'S RECOMMENDATION.

- (1.5.2) **FLASHING:** FLASHING AROUND WINDOWS, DOORS CHIMNEYS, TRANSITIONS BETWEEN WALLS AND ROOF AND AT OTHER POINTS SPECIFIED SHALL BE CONTINUOUS AND WATERTIGHT. FLASHING SHALL BE DESIGNED AND INSTALLED TO PREVENT WATER INFILTRATION BEHIND THE **STUCCOMAX** SYSTEM.
- (1.5.3) **JOINTS:** EXPANSION JOINTS ARE INSTALLED AT ALL AREAS WHERE MOVEMENT IS ANTICIPATED AND AT ALL BUILDING STRUCTURAL BRAKES. JOIN PLACEMENT SHALL BE SPECIFIED BY THE ARCHITECT AND SHOULD FOLLOW STANDARD PLASTER/STUCCO PRACTICES.

(1.6) SUBSTRATE PREPARATION

(1.6.1) ALL FOAMS: RASPING IS NECESSARY TO REMOVE POTENTIAL BOND BREAKERS AND TO ENSURE GOOD ADHESION. SURVEY THE SUBSTRATE FOR IRREGULARITIES THAT MAY ADVERSELY AFFECT THE APPLICATION SUCH AS MINOR PROTRUSIONS AND VOIDS CUT INTO THE EPS NEED TO BE FILLED PRIOR TO THE STUCCOMAX INSTALLATION. LOW EXPANSION SPRAY FOAM IS APPLIED INTO THE VOID, ALLOWED TO CURE AND SHAVED FLAT WITH THE SURFACE.

(1.7) **MIXING**

- (1.7.1) **WATER:** MIXING WATER MUST BE POTABLE AND FROM A MUNICIPAL SOURCE. WATER TEMPERATURE SHOULD BE CONSIDERED AND ADJUSTED IF NECESSARY.
- (1.7.2) MIXING: POUR 4.5 QUARTS OF WATER INTO THE MIXING BUCKET AND BEGIN TO ADD STUCCOMAX. BEGIN MIXING WHILE SLOWLY ADDING IN REMAINING STUCCOMAX BAG CONTENTS. MIX TIME IS APPROXIMATELY 3 MINUTES OR UNTIL A SMOOTH LUMP FREE CONSISTENCY IS MET. SMALL AMOUNTS OF WATER MAY BE ADDED TO ADJUST MATERIAL CONSISTENCY IF NECESSARY.
- (1.7.3) **EQUIPMENT**: H/D DRILLS WITH TYPICAL PLASTER MIXER ATTACHMENTS MAY BE USED. HAND HELD ERGONOMICALLY ENGINEERED MIXERS ARE ALSO ACCEPTABLE. AVOID EXCESSIVE HIGH SPEEDS AS THIS CAN CREATE HEAT AND ACCELERATE SETTINGS TIMES, REDUCING WORKABILITY.
- (1.7.4) <u>POT LIFE</u>: STUCCOMAX BUCKET LIFE IS APPROXIMATELY 20 MINUTES. PLAN THE INSTALLATION SO THAT EACH BATCH CAN BE CONVENIENTLY APPLIED WITHIN THIS TIME FRAME. RE TEMPERING BATCHES THAT ARE BEGINNING TO SET IS STRONGLY DISCOURAGED.

(1.8) SPRAY EQUIPMENT

STUCCOMAX MAY BE APPLIED BY HAND TROWEL, HOPPER GUN TEXTURE SPRAYER OR STUCCO/PLASTER TYPE SPRAY EQUIPMENT.

(1.9) APPLICATION

A FIRST 1 COAT OF STUCCOMAX IS DIRECTED APPLIED TO THE EPS AND WORKED FLAT. MESH IS EMBEDDED INTO THE FIRST COAT WORKING MATERIAL THROUGH WHILE ENSURING THAT THE MESH IS FLAT AND FREE OF WRINKLES. OVERLAP ADJOINING MESH BY A MINIMUM OF 2.5" TO 4" IDEALLY. A SECOND PASS OF STUCCOMAX IS IMMEDIATELY APPLIED OVER THE MESH TO THE SPECIFIED THICKNESS. THIS IS A TRUE ONE COAT DOUBLE BACK (TWO PASS) METHOD THAT TYPICALLY RESULTS IN 1 OVERALL THICKNESS.

(1.9.1) MESH: MESH GAUGE 11 OUNCE PER YARD ARE OVERLAPPED ON ALL EDGES A MINIMUM OF 2.5". APPLY MESH STRIPS ON ALL CORNERS OF DOORS AND WINDOWS WHERE CRACKING IS MOST LIKELY TO OCCUR. THESE ARE ALSO PRE—CUT "L" AND "T"

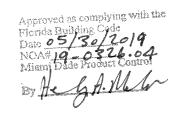
SHAPES AND IS AN INDUSTRY STANDARD CRACK REDUCER.

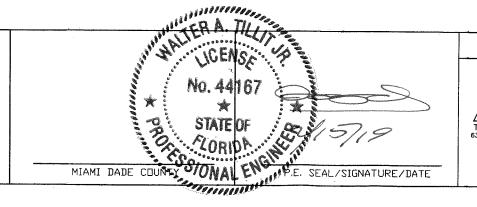
(1.9.2) **IROWEL TIMING:** WORKING TIME DEPENDS ON MATERIAL VISCOSITY, TEMPERATURE AND HUMIDITY.

GENERALLY, THE MATERIAL IS EASILY APPLIED IN APPROXIMATELY 20 MINUTES. TROWEL LINES AND APPLICATION IRREGULARITIES MAY BE FLATTENED WITHIN 20 MINUTES OF THE APPLICATION. WATER TROWELING WILL NOT HARM **STUCCOMAX.**DO NOT OVER TROWEL AS SURFACE BLISTERING MAY OCCUR. PLAN TO IMPROVE THE WALL PROFILE IN THE RELATIVE SHORT TERM.

(1.9.3) SURFACE PROTECTION AND DECORATION

- (1.9.4) PAINT: EXTERIOR MASONRY TYPE PAINT PRIMERS ARE RECOMMENDED PRIOR TO FINAL PAINT COAT. WASHING THE WALL SURFACE TO REMOVE ANY DUST OR CONTAMINANTS IS HIGHLY RECOMMENDED PRIOR TO ANY PAINTING. IF THE NATURAL STUCCOMAX IS PREFERRED IT SHOULD BE SEALED WITH A CLEAR NON STAINING SEALER WHICH WILL ASSIST REDUCING STAINS OR WATERMARKS CAUSED BY RAIN RUN-OFF.
- (1.9.5) <u>CURING</u>: ENSURE THAT **STUCCOMAX** IS ALLOWED TO CURE IN TEMPERATURES WITHIN THE APPLICATION TEMPERATURE RANGE. MOIST CURING FOR 2 HOURS IS RECOMMENDED.





FLORIDA BUILDING CODE (HIGH VELOCITY HURRICANE ZONE)

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GigaCrete

TILLIE CO INC.

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e-mail: tilteca@aal.com CA-0006719 WALTER A. TILLIT Jr. P.E. FLORIDA Lic. # 44167

Giga	Crete Ext	erior	Wall	Panel Sys	stem	M.P. DRAWN BY:
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	19-008					
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	DRAWING No.
1			3	-		SHEET 2 OF 13
2	_		1	_		SHEET 2 OF 13

SPECIFICATIONS & APPLICATION SEQUENCE FOR PLASTER MAX ON WALL PANELS MANUFACTURED BY GIGACRETE Inc.

(2) <u>Plaster max</u>: interior veneer plaster over eps foam

(2.1) **DESCRIPTION:**

PLASTERMAX IS A STATE-OF-THE-ART ABUSE RESISTANT VENEER PLASTER SPECIFICALLY FORMULATED TO PROVIDE A VERSATILE HIGH-STRENGTH INTERIOR WALL FINISH OVER EXPANDED POLYSTYRENE FOAM. THE PRODUCT MAY BE INSTALLED IN ONE OR MULTIPLE COAT APPLICATIONS DEPENDING ON SPECIFICATION REQUIREMENTS AND DESIRED AESTHETIC EFFECTS. PLASTERMAX COMPLIES WITH ASTM E136, ASTM E84, ASTM G21, ASTM C587, UBC 26-3 AND NFPA 286 FIRE RATING.

- (2.2.1) IEMPERATURE: PLASTERMAX MUST BE APPLIED ON INTERIOR WALLS WITH A MINIMUM SURFACE TEMPERATURE AND AMBIENT ROOM TEMPERATURES BETWEEN 55°F AND 95°F (13°C-35°C) WITH A MINIMUM WALL SURFACE TEMPERATURE ABOVE 50°F (10°C). IN COLDER ENVIRONMENTS THE BUILDING SHALL BE HEATED LONG ENOUGH TO BRING THE SURFACE TEMPERATURE OF THE SUBSTRATE ABOVE 50°F AND MAINTAINED UNTIL PLASTERMAX HAS SUFFICIENTLY CURED. DO NOT APPLY PLASTERMAX IN TEMPERATURE ABOVE 95 F, USE A/C OR SWAMP COOLERS TO ACHIEVE IDEAL ROOM TEMPERATURES.
- (2.2.2) HUMIDITY: THE BUILDING MUST HAVE A MINIMUM RELATIVE HUMIDITY TO BE PROVIDED BY GIGACRETE TO AVOID PREMATURE SURFACE DRYING AND CONSISTENT CURING.
- (2.2.3) IDEAL DRYING & AIR MOVEMENT: STRICTLY FOLLOW GIGACRETE SPECIFICATIONS FOR TEMPERATURE & HUMIDITY PERCENTAGE. AS WELL AS CONTROL OF AIR MOVEMENT.
- (2.2.4) DIRECT SUNLIGHT: SHADE THE PLASTERMAX FROM DIRECT SUNLIGHT DURING THE INSTALLATION AND ITS INITIAL 48 HOUR CURE.
- (2.2.5) MOISTURE: ENSURE THAT THE APPLICATION SUBSTRATE IS FREE OF SURFACE MOISTURE PRIOR TO THE PLASTERMAX APPLICATION AND THAT THE SOURCE OF THE MOISTURE IS PROPERLY ADDRESSED. PLASTERMAX MUST NOT BE MOISTENED DURING THE APPLICATION OR DURING THE INITIAL CURE PERIOD.

(2.3) SUBSTRATE PREPARATION

- (2.3.1) ALL FOAMS: RASPING IS NECESSARY TO REMOVE POTENTIAL BOND BREAKERS AND TO ENSURE GOOD ADHESION. MECHANICAL CHASE VOIDS CUT INTO THE EPS NEED TO BE PRIOR TO THE PLASTERMAX INSTALLATION.
- MIXING PLASTERMAX ACTIVATOR & MIXING EQUIPMENT: PER GIGACRETE SPEC'S
- (2.4.1) SPRAY EQUIPMENT: PLASTERMAX MAY BE APPLIED BY HAND TROWEL, HOPPER GUN TEXTURE SPRAYER OR STUCCO/PLASTER TYPE SPRAY EQUIPMENT. WHEN USING SPRAY EQUIPMENT, IT MAY BE NECESSARY TO ADJUST THE AIR FLOW.

- (2.5.1) CONTROL JOINTS: CONTROL JOINTS ARE NECESSARY TO COMPENSATE FOR POTENTIAL STRUCTURAL MOVEMENT, SETTLING, THERMAL AND HUMIDITY EXPANSION OR CONTRACTION AND PROVIDE INSTALLATION STOP AND START POINTS. IT IS RECOMMENDED THAT JOINTS ARE PLACED AT REGULAR SPACING'S; HOWEVER DEPENDING ON WALL HEIGHTS IT IS BEST TO FOLLOW INDUSTRY STANDARD PLASTER CONTROL JOINT SPACING.
 - PLASTIC "V" JOINTS ARE PREFERRED AS IT IS EASIER TO MAINTAIN THE TARGET INSTALLATION DEPTH ALONG A TEMPORARY TEAR AWAY STRIP THAT RUNS ALONG EACH SIDE OF THE CENTER GROOVE.
- (2.5.2) CASING BEAD: CASING BEADS ARE NECESSARY TO ISOLATE PLASTERMAX FROM DISSIMILAR MATERIALS SUCH AS METAL DOOR FRAMES, METAL WINDOW FRAMES, CEILINGS, FLOORS AND WALLS.
- (2.5.3) OUTSIDE CORNER BEAD: OUTSIDE CORNER BEADS ARE OPTIONAL BUT RECOMMENDED.
- (2.6) **FINISH:** DIRECT APPLICATION TO FOAM
- (2.6.1) PREPARATION: REMOVE ALL POSSIBLE BOND BREAKERS SUCH AS DUST, DIRT, OIL, MOISTURE, WALL PAPER ETC. SURVEY THE SUBSTRATE FOR IRREGULARITIES THAT MAY ADVERSELY AFFECT THE APPLICATION SUCH AS MINOR PROTRUSIONS AND VOIDS. WALLS MUST NOT BE WET OR MOIST OR CONTAIN MOISTURE TRAPPED WITHIN THE WALLS. ALL FOAMS SHOULD BE RASPED AND CLEAN OF CONTAMINANTS AND DO NOT REQUIRE ACRYLIC BONDERS.
- (2.6.2) REINFORCED MESH: 11 OZ FIBERGLASS FROM GIGACRETE IS A CRITICAL PART OF THE PLASTERMAX APPLICATION. A 1/8" (3MM) MINIMUM COAT OF PLASTERMAX IS APPLIED TO THE SUBSTRATE BEING COATED AND WORKED REASONABLY FLAT. OVERLAP 2" TO 3" ADJOINING VERTICALLY HUNG MESH SHEETS. AN ADDITIONAL COAT OF PLASTERMAX IS NOW APPLIED OVER THE FIRST LAYER AND BUILT UP TO THE DESIRED THICKNESS.
- (2.6.3) SPRAYING: SPRAYING IS BOTH FASTER TO APPLY AND ALLOWS LARGE WALLS TO BE COVERED QUICKER. PLASTERMAX MAY BE APPLIED BY HAWK AND TROWEL BUT SPRAY APPLICATION IS RECOMMENDED FOR BEST RESULTS.
- (2.6.4) HAWK & TROWEL: PLASTERMAX IS HAND APPLIED LIKE MOST CONVENTIONAL PLASTER MATERIAL.
- (2.6.5) TROWEL TIMING: DRY AND SET TIMES DEPEND ON MATERIAL VISCOSITY, TEMPERATURE AND HUMIDITY. GENERALLY, THE FIRST TROWEL PASS IS APPROXIMATELY 20 MINUTES AFTER THE INITIAL APPLICATION AND IN 20 MINUTE INTERVALS FOR SUBSEQUENT TROWEL PASSES. TROWELLING FROM TOP TO BOTTOM EACH TIME HELPS TO KEEP A GOOD WALL PROFILE.
- (2.6.6) SMOOTH FINISH & TEXTURES: FOR A SMOOTH WALL FINISH A STEEL TROWEL TYPICALLY USED FOR CONVENTIONAL PLASTER MAY BE USED. IT IS IMPORTANT TO ALLOW PLASTERMAX TO TAKE AN INITIAL SET (GEL STAGE) BEFORE ATTEMPTING TO FINISH IT SMOOTH. SPRAY TEXTURES SUCH AS ORANGE PEEL, SPLATTER AND SPLATTER KNOCKDOWN ARE ALSO POSSIBLE. TEXTURING IS PERFORMED DURING THE SECOND COAT APPLICATION.

(2.6.7) SURFACE PROTECTION

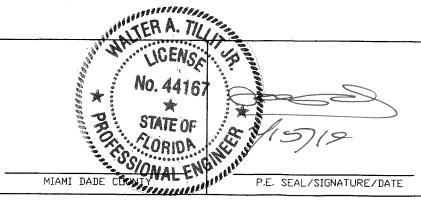
- (2.6.7.1.) PAINT: WALL PAINT IS MOST COMMONLY USED TO SEAL, PROTECT, AND PROVIDE A CONSISTENT DECORATIVE FINISH TO CURED PLASTERMAX BREATHABLE LATEX PRIMERS AND PAINT TYPICALLY USED FOR CONVENTIONAL PLASTERS ARE RECOMMENDED AFTER A MINIMUM 3 DAY CURE PERIOD.
- SEALER: PLASTERMAX THAT IS NOT BEING PAINTED MUST BE SEALED WITH QUALITY SILOXANE SEALERS. ALWAYS TRY A CHOSEN SEALER IN A SMALL AREA TO CHECK FOR COMPATIBILITY BEFORE APPLYING TO LARGE AREAS OR CONTACT GIGACRETE FOR BRAND RECOMMENDATIONS.
- (2.6.7.3) CLEAN UP: ALL MIXING SPRAYING AND FINISH EQUIPMENT MUST BE THOROUGHLY WASHED IMMEDIATELY AFTER USE. POTABLE TAP WATER IS SUFFICIENT FOR CLEANING.
- (2.6.7.4) CURING: DRYING AND CURING TIMES MAY VARY WIDELY DUE TO TEMPERATURE AND HUMIDITY DIFFERENCES FROM ONE LOCATION TO ANOTHER. IT IS IMPORTANT FOR PLASTERMAX TO BE FULLY DRY BEFORE APPLYING ANY SURFACE TREATMENT OR DECORATIVE PRODUCT. QUESTIONS REGARDING DRYING AND CURING MAY BE DIRECTED TO GIGACRETE AUTHORIZED TECHNICAL ASSISTANCE REPRESENTATIVE.

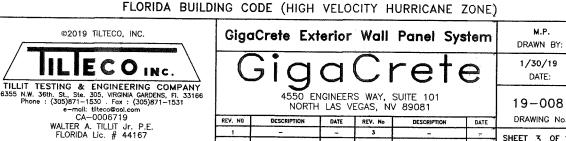
(2.6.7.5) **LIMITATIONS**:

- 1. DO NOT OVER WET, AS THIS MAY LEAD TO PRODUCT FAILURES.
- 2. DO NOT TEMPER THE MATERIAL WITH ADDITIONAL ACTIVATOR AFTER INITIAL MIXING AS THIS MAY LEAD TO PRODUCT FAILURES.
- 3. METALLIC SURFACES SUCH FASTENERS, OTHER THAN STAINLESS STEEL OR BRASS, SHOULD NOT DIRECTLY CONTACT PLASTERMAX. SEAL ALL EXPOSED METAL SURFACES CONTACTING PLASTERMAX WITH A SUITABLE PRIMER OR OTHER ANTICORROSIVE COATING PRIOR TO PRODUCT APPLICATION OR SEPARATE BY USING PLASTIC COMPONENTS TRIM OR GAPS WITH SILICONE CAULKING.



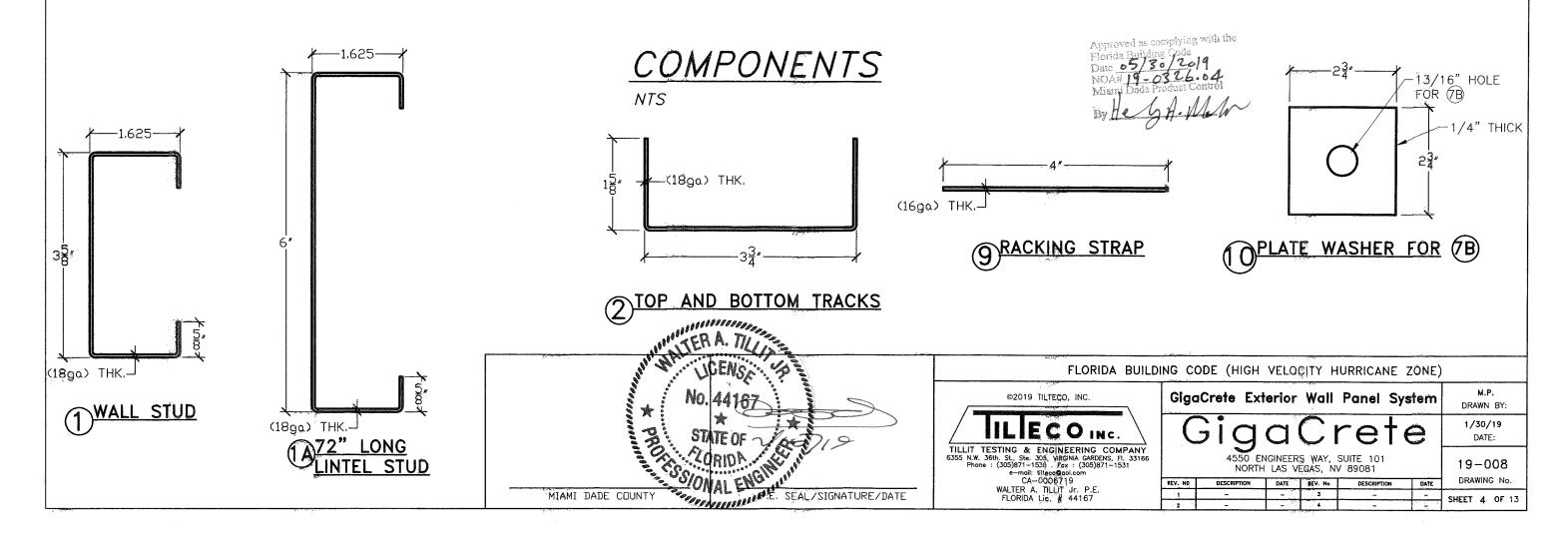
SHEET 3 OF 13

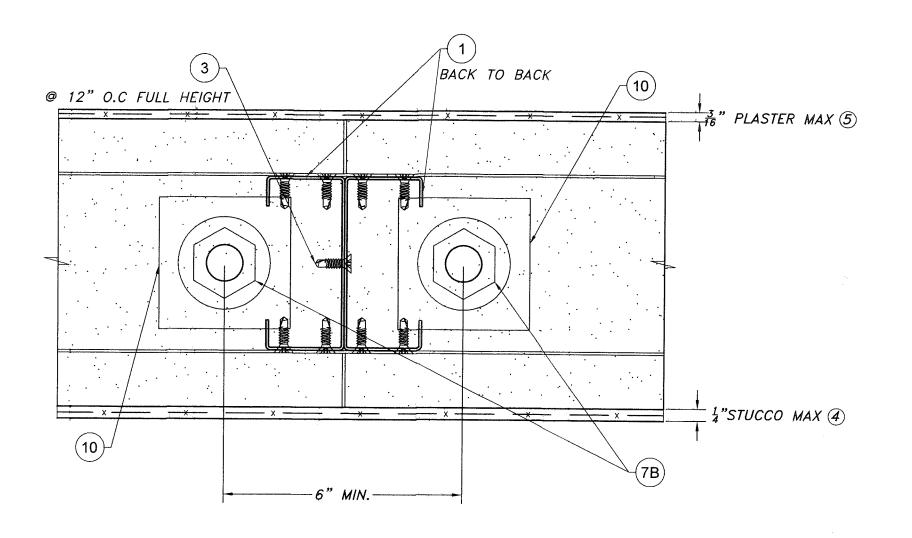




BILL OF MATERIALS

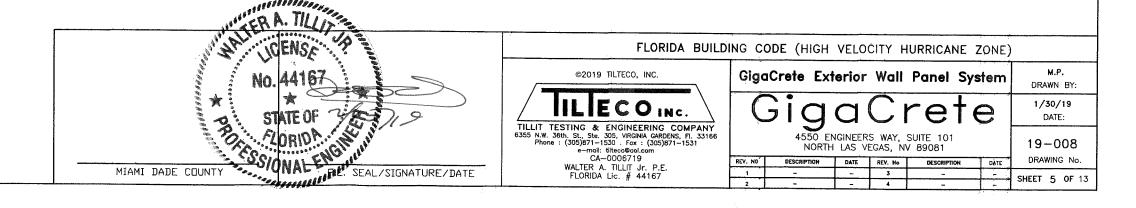
COMPONENT No.	DESCRIPTION	DIMENSIONS	MATERIAL	MANUFACTURER	NOTES
1.	WALL STUD	1 5/8" X 3 5/8" X 18 GAUGE W/ 5/8" LIP	ASTM A-653 GRADE 40 G-60 GALV. STEEL	_	USE (3) EACH 48" WIDE SOLID PANEL. Fy=46.1 ksi; Fu≥55.8 ksi
(A)	72" LONG LINTEL STUD	1 5/8" X 6" X 18 GAUGE W/ 5/8" LIP	ASTM A-653 GRADE 40 G-60 GALV. STEEL	_	USE (2) EACH 72" LONG LINTEL. Fy=46.1 ksi; Fu=55.8 ksi
2.		1 5/8" X 3 3/4" X 18 GAUGE CHANNEL	ASTM A-653 GRADE 40 G-60 GALV. STEEL		FIT 1) TO 2) TOP & BOTTOM & FASTEN W/ (2) 3) AT TOP & (2) 3) @ BOTTOM. Fy=46.1 ksi; Fu=55.8 ksi
3.	FASTENER FOR 2 & 1	#10-16 X 3/4" F.H. SELF DRILLING SCREW	COATED STEEL, GRADE 5	<u>-</u>	USE (2) EACH SIDE EACH 2 TO 1 @ TOP & BOTTOM
4.)	EXTERIOR STUCCO	1/4" THICK STUCCO MAX ™	NON PORTLAND CEMENT BASED EXTERIOR WALL FINISH COATING	GIGACRETE INC.	USE W/ (1) 11 OUNCE/Yd FIBERGLASS MESH AT MID-THICKNESS, APPLY OVER (6). SEE SHEET 2
5.	INTERIOR VENEER PLASTER	3/16" THICK PLASTER MAX.	INTERIOR WALL FINISH COATING	GIGACRETE INC.	USE W/ (1) 11 OUNCE/Yd FIBERGLASS MESH AT MID-THICKNESS, APPLY OVER 6). SEE SHEET 3
	FUAM INSULATION	6" THICK	EPS/EXPANDED POLYSTYRENE TYPE 1 (1 p.c.f.) DENSITY	DYPLAST PRODUCTS LLC W/NOA.	INCLUDES CUTS TO FIT (1) AND (2)
(7A)	ALL THREAD ANCHOR W/"SET 22" EPOXY FOR (2) AT BOTTOM	3/4"ø X 9" ALL THREADED RÖDS W/1/8" X 1 1/2" O.D WASHERS	GALVANIZED STEEL RODS	SIMPSON STRONG TIE	USE AT (2) @ 24" O.C EACH 48" SOLID PANEL W/ 6 3" MIN. EMBEDMENT & 4" EDGE DISTANCE
(7B)	ALL THREAD ANCHOR W/"SET 22" EPOXY FOR 2 AT TOP AND BOTTOM	3/4"ø ALL THREADED RODS W/ 1/8" X 1 1/2" O.D WASHERS	GALVANIZED STEEL RODS	SIMPSON STRONG-TIE	USE AT (2) W/(0) @ 48" O.C W/ (2) BUTT SPLICED RODS W/ 4" COUPLING W/ $6\frac{3}{4}$ " MIN. EMBEDMENT INTO CONCRETE & 4" EDGE DISTANCE
10)	PLATE WASHER FOR (B)	1/4" X 2 3/4" X 2 3/4"	ASTM A-36 COATED STEEL		USE (2) EACH (B) (TOP & BOTTOM)
(2)	BOTTOM TRACK 2 SEALER	1/8" THK. X 3 5/8" CONT.	FOAM/DOW GASKET	_	USE UNDER 2 (BOTTOM) CONTINUOUS

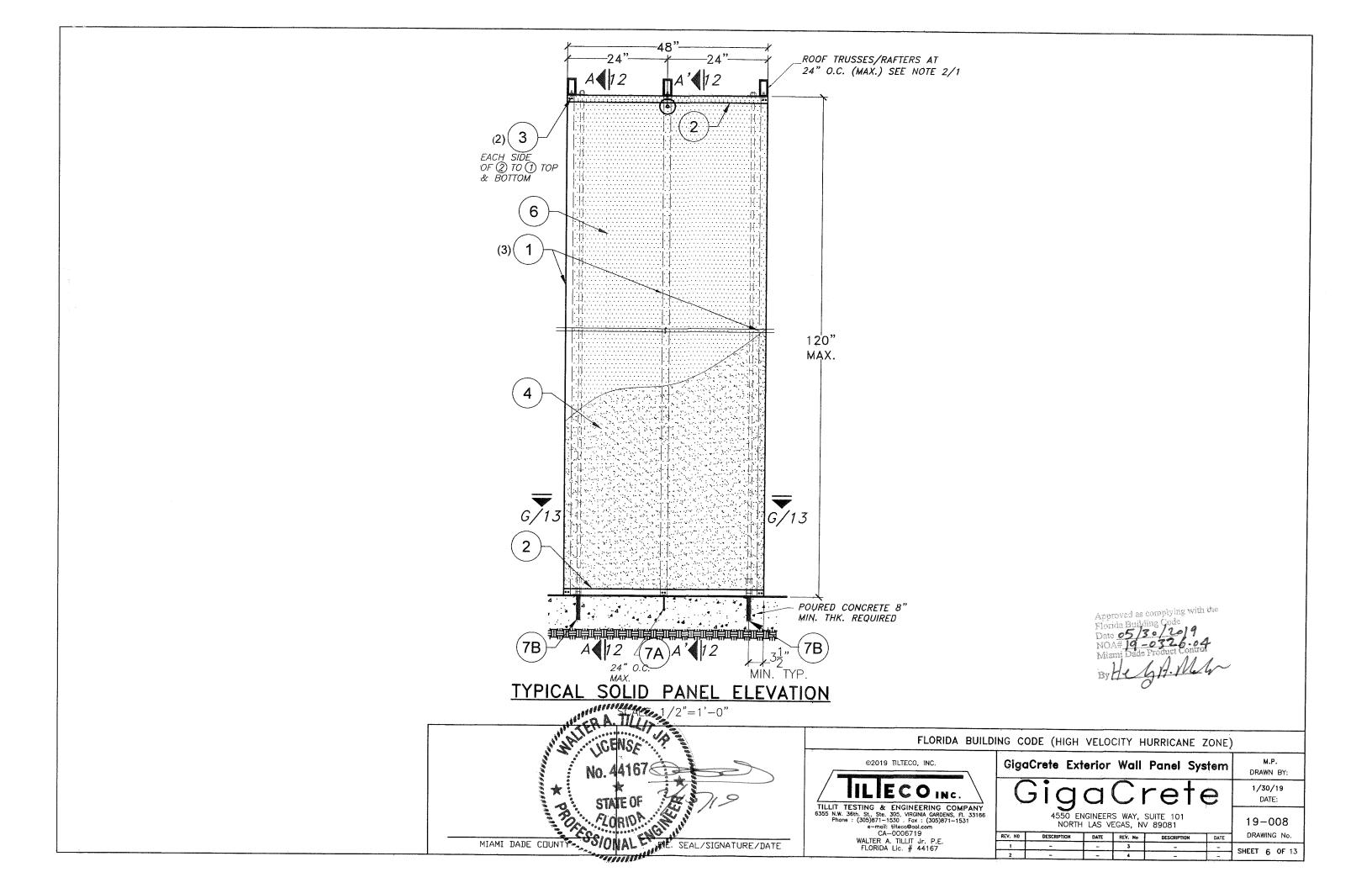


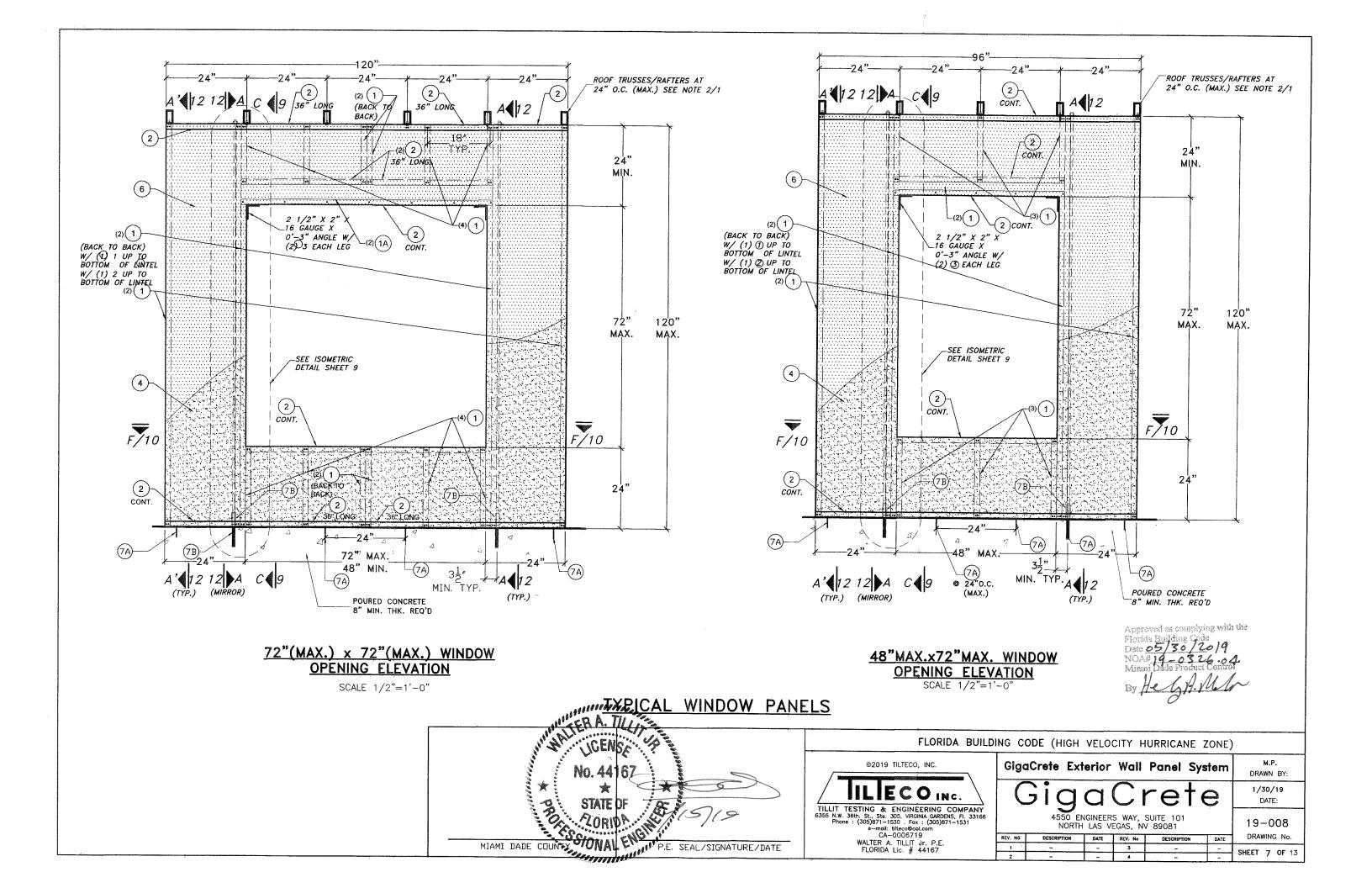


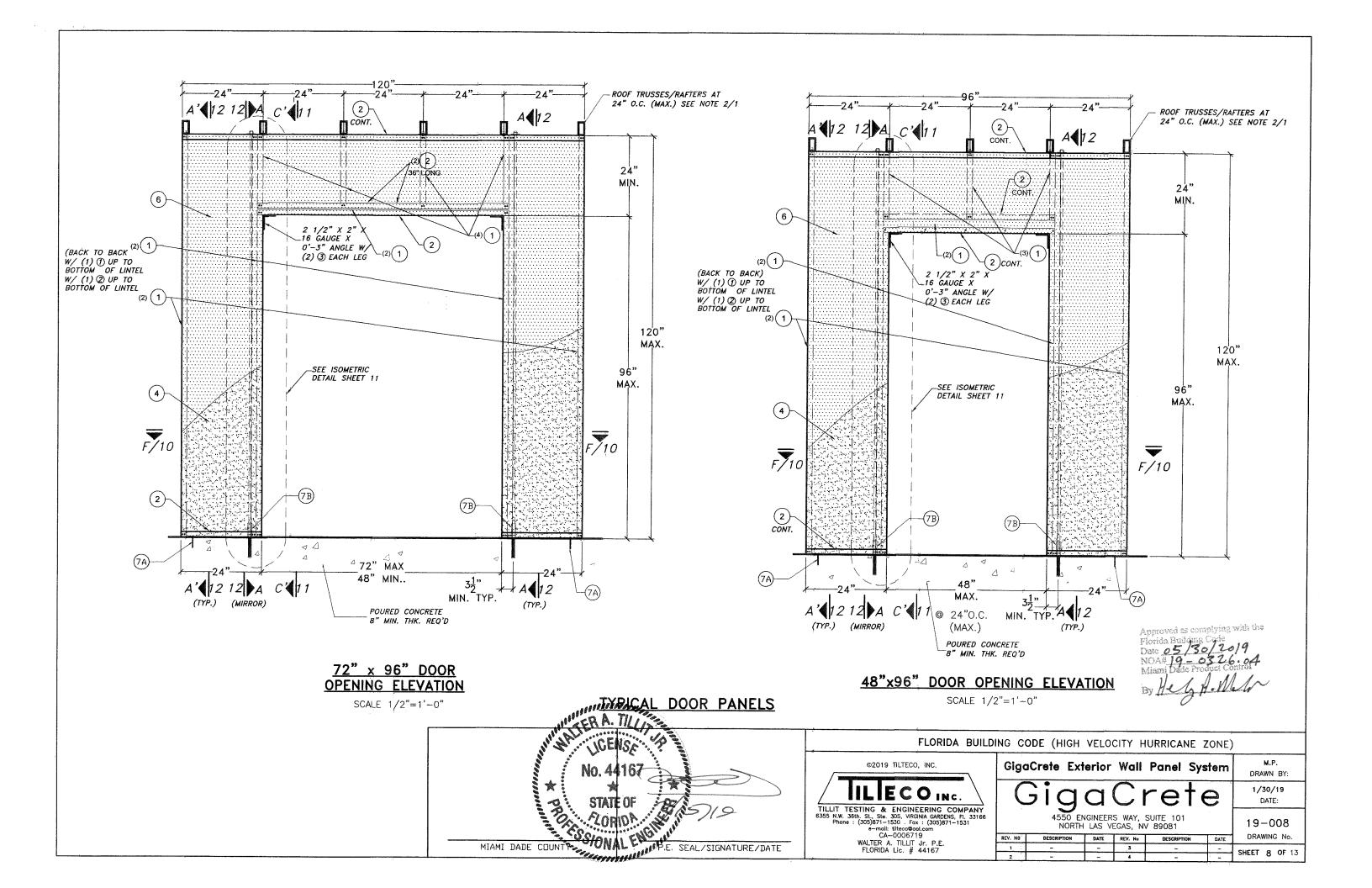
TYPICAL SEALING SECTION AT JOINT BETWEEN GigaCrete PANELS

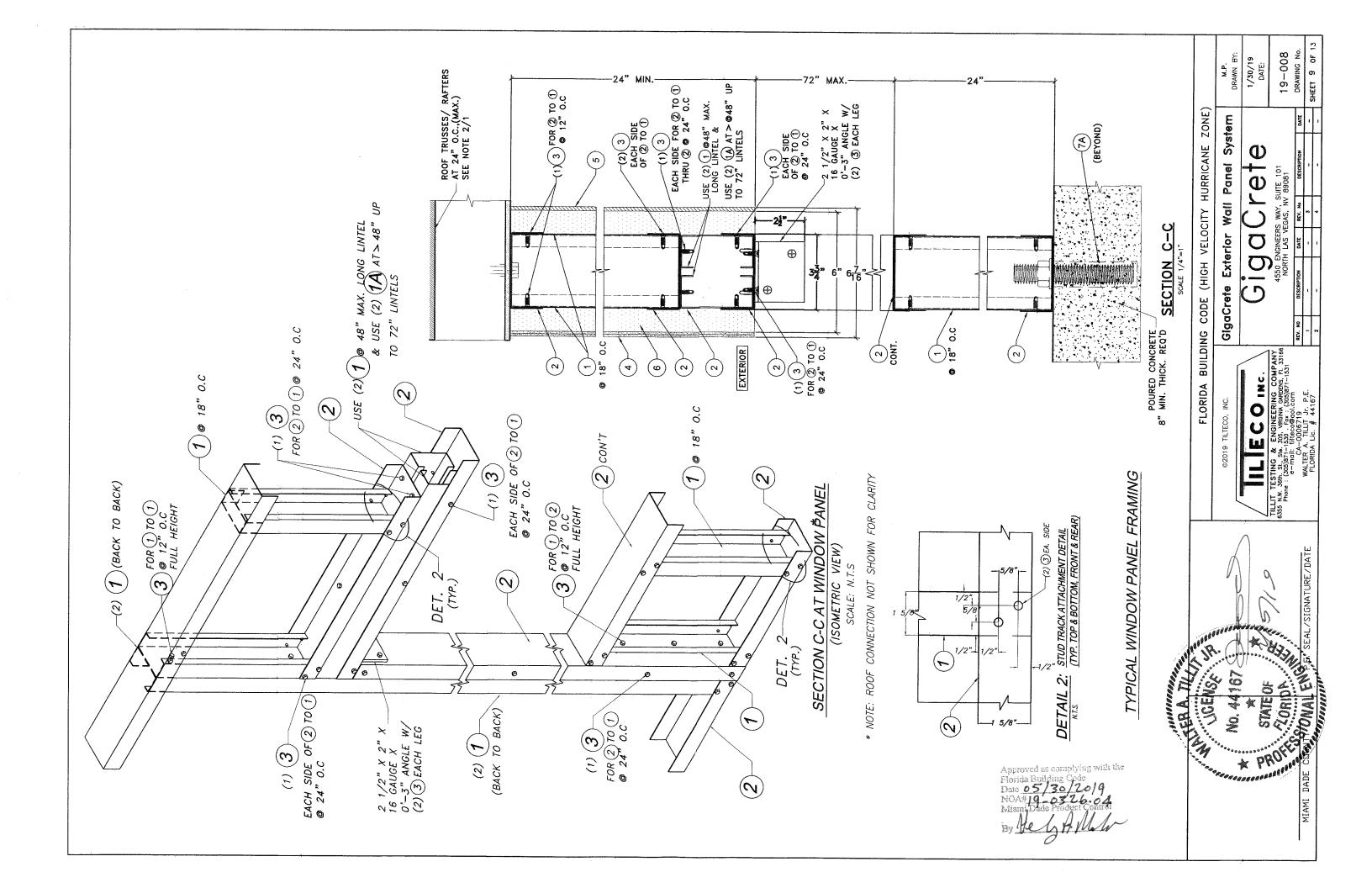
Approved as complying with the Florida Building Code
Date 05/30/2019
NOA#19-0326.04
Miami Dade Product Control
By H&A-MA

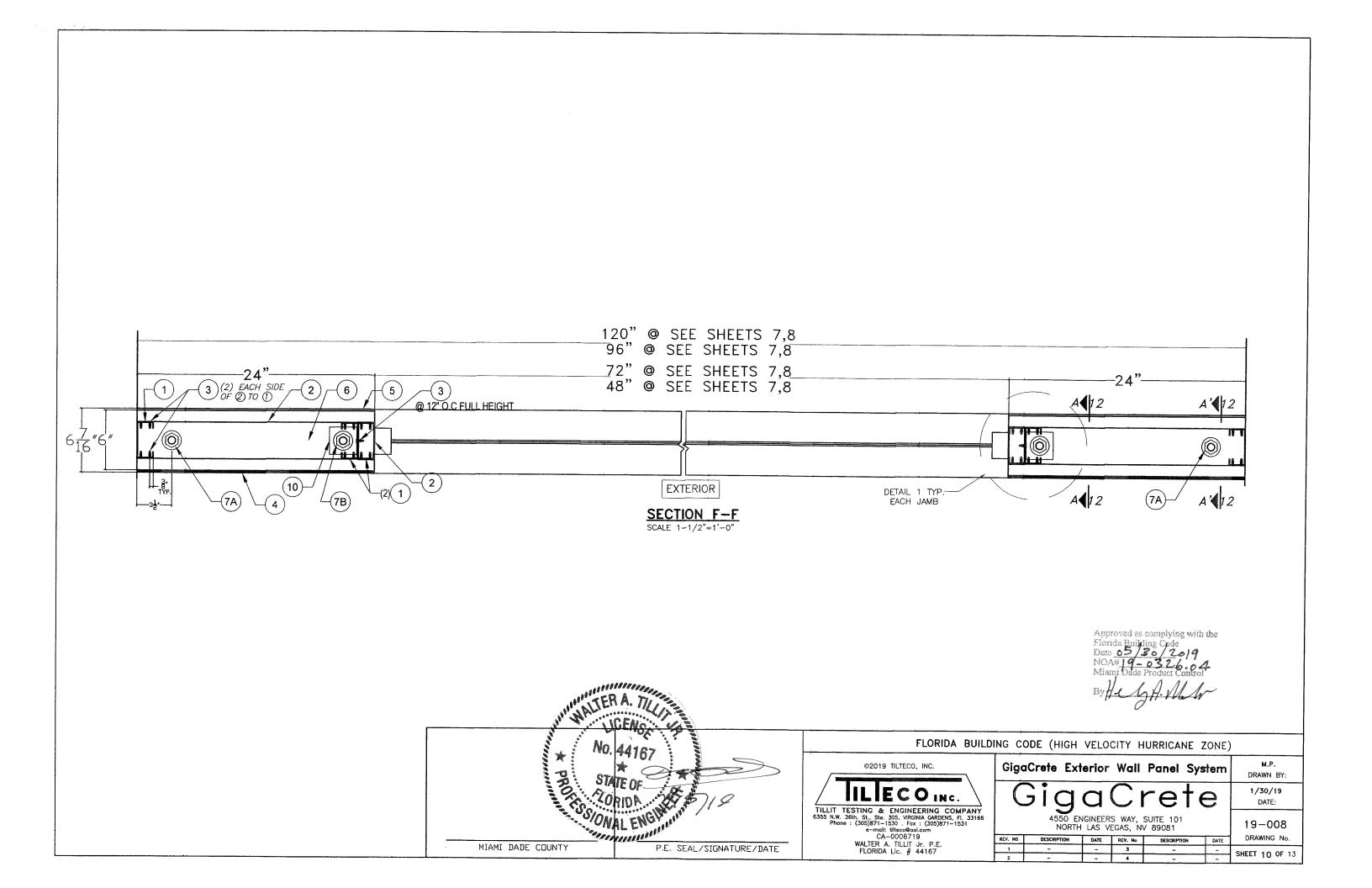


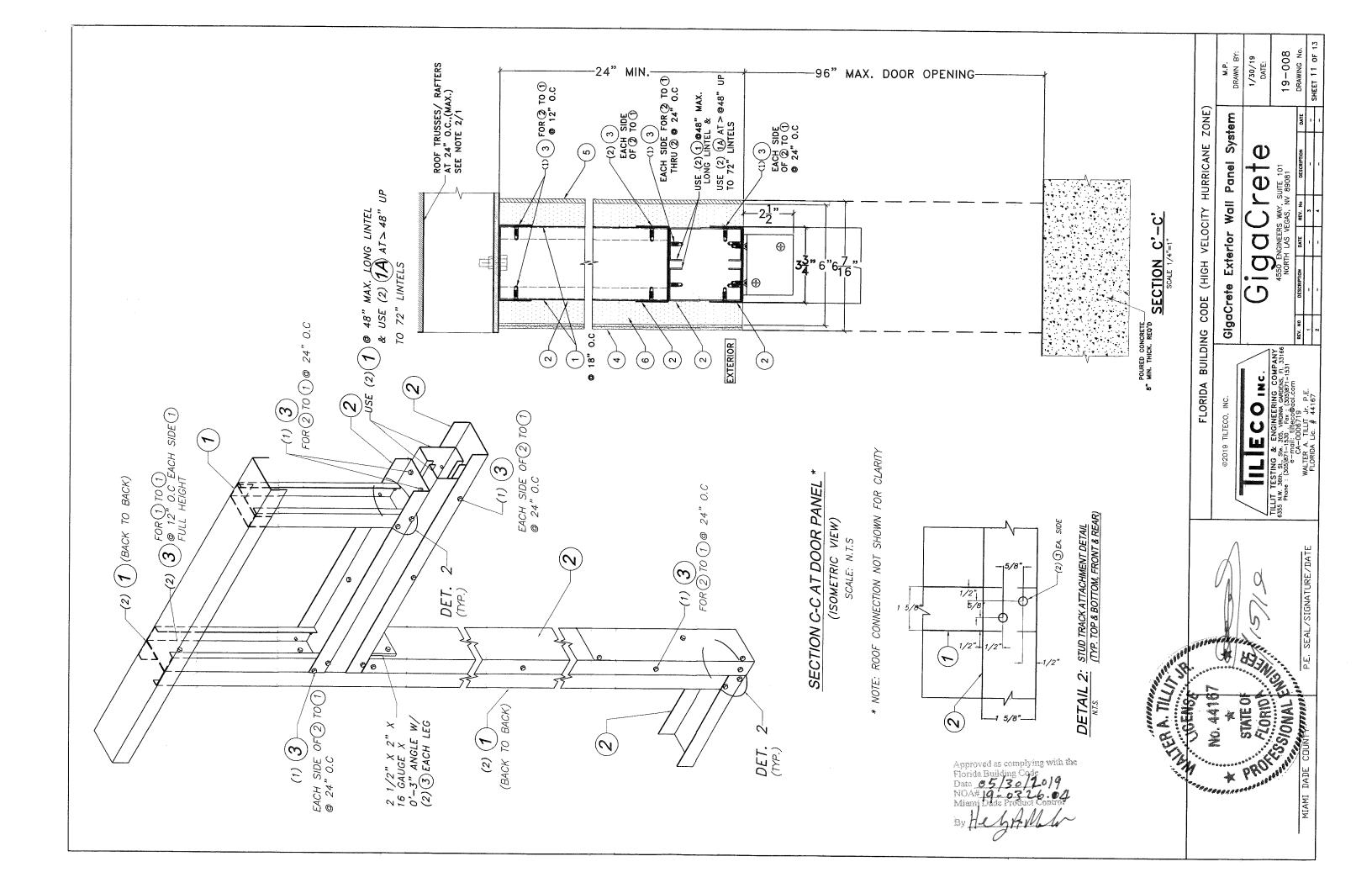


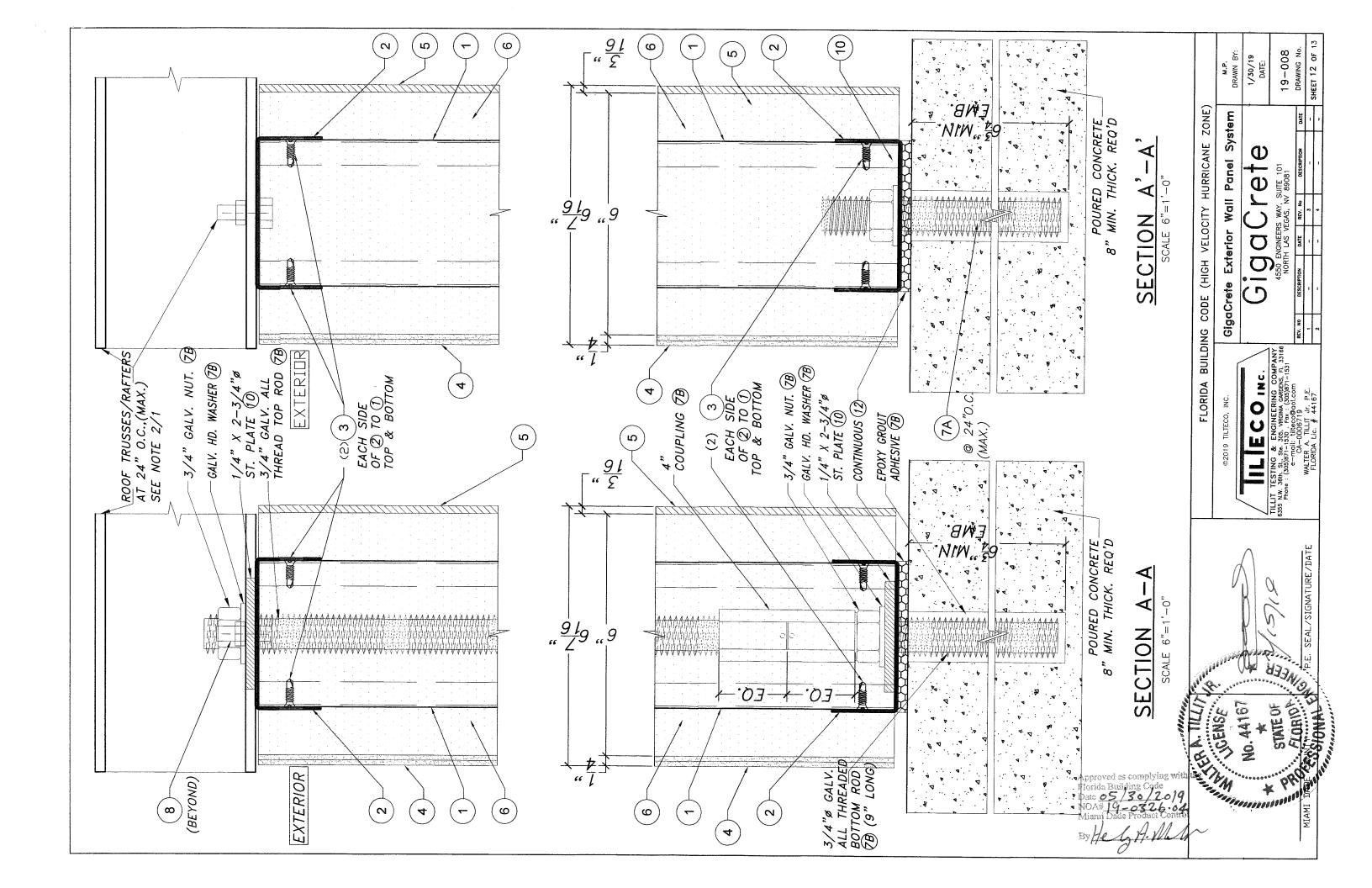


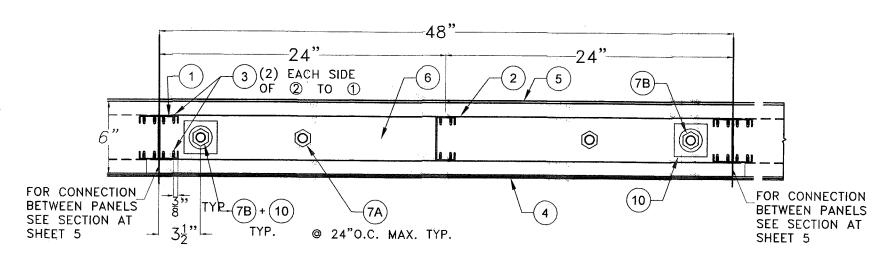




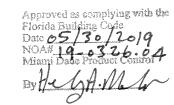


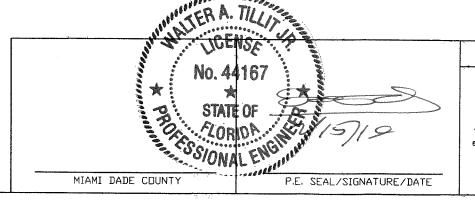






SECTION G-G





FLORIDA BUILDING CODE (HIGH VELOCITY HURRICANE ZONE)

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TILLIE CO INC.

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CA-0006719

WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

GigaCrete Exterior Wall Panel System	M.P. DRAWN BY:
GigaCrete	1/30/19 DATE:
4550 ENGINEERS WAY, SUITE 101 NORTH LAS VEGAS, NV 89081	19-008
REV. NO DESCRIPTION DATE REV. No DESCRIPTION DATE	DRAWING No.

SHEET 13 OF 13